

## IT IS CLAIMED:

1. A method for the preparation of nano- or microparticles containing an active substance embedded in a polymer matrix, comprising the steps of:

- 5 a) effecting precipitation of an active substance in a solution which comprises a polymer dissolved in an organic solvent to obtain a suspension of the active substance,
- b) mixing the obtained suspension with an aqueous surfactant solution and solidifying the polymer to obtain a suspension of nano- or microparticles which
- 10 contain an active substance.

2. The method of claim 1, wherein precipitation of step a) is accomplished by combining a smaller amount of a first solvent L1 dissolving the active substance with a larger amount of a second organic solvent L2 dissolving the polymer, and

15 wherein L2 is a non-solvent for the active substance.

3. The method according to claim 2 wherein L1 and L2 are fully or partially miscible.

20 4. The method of claim 2 or 3, wherein L1 and L2 are combined under stirring.

5. The method of any of claims 1 to 4, wherein the organic solvent(s) used is (are) partially soluble in water.

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6. The method of claim 5, wherein the suspension of the nano- or microparticles is obtained in step b) by adding the aqueous surfactant solution to the suspension of step a).

30 7. The method of any of claims 1 to 6, wherein the volume fraction of the aqueous surfactant solution ranges between 60 and 80 % of the aqueous and organic solvents combined in step b).

8. The method of any of claims 1 to 7, wherein the active substance is a protein or a peptide.

5 9. The method of any of claims 1 to 8 wherein the polymer is a poly (DL-lactide-co-glycolide).

10. Nano- or microparticle obtainable according to the method of any of claims 1 to 9.

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11. Nano- or microparticle according to claim 10, wherein the particles of the active substance embedded in the polymer matrix of the nano- or microparticles have an average diameter of less than 1  $\mu\text{m}$ .